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(54) Title: **DIAGNOSTICS AND THERAPEUTICS FOR DISEASES ASSOCIATED WITH HUMAN PHOSPHODIESTERASE 10A (PDE10A)**

(57) **Abstract:** The invention provides a human PDE10A which is associated with the disorders of the peripheral and central nervous system (e.g. Alzheimer), cardiovascular diseases, cancer (e.g. thyroid, oesophagus, stomach, liver, ovary, kidney), gastroenterological diseases (e.g. liver cirrhosis), endocrinological diseases and urological diseases (e.g. benign prostate hyperplasia). The invention also provides assays for the identification of compounds useful in the treatment or prevention of disorders of the peripheral and central nervous system, cardiovascular diseases, cancer, gastroenterological diseases, endocrinological diseases and urological diseases. The invention also features compounds which bind to and/or activate or inhibit the activity of PDE10A as well as pharmaceutical compositions comprising such compounds.